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COLLEGE OF EDUCATION
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Educational Research Bulletin

A CONTRAST OF THE PREPARATION AND WORK OF MEN AND WOMEN ELEMENTARY-SCHOOL PRINCIPALS

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and
J. Cayce Morrison
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The question, to what extent does sex influence the selection of school principals, their preparation for the work, and the exercise of their duties? is pertinent in a day when women are gaining an ever increasing prestige in the educational profession.

During the school year 1924–25, the Department of School Administration, Ohio State University, undertook a study of the present status of the school principalship in Ohio cities and exempted villages.[1] Returns were received from 46 percent of the total number of principals of senior high, junior high, and elementary schools combined. Five percent of the 128 senior high-school principals in Ohio cities, and 13 percent of the 54 junior high-school principals were women.[2] Obviously these numbers combined are, as yet, too small to justify any positive conclusions as to differences in the preparation required or the duties performed.

Of 383 elementary-school principals reporting from Ohio cities and exempted villages, 243 were women and 140 were men. Since the data at hand represent approximately 45 percent of all the city elementary-school principals of the state, fair contrasts and comparisons of the qualifications and duties of the two sexes may be made.

Women hold 63 percent of the Ohio elementary principalships. They have been employed in their present positions for a period of 6.6 years, on the average, while the men have similarly served for 5.0 years. The men seemingly change positions more readily and are outnumbered by the women in the ratio of approximately two to one.

The size of the school over which jurisdiction is exercised constitutes an important consideration. Two items serve as an index, namely, the number of full-time teachers supervised and the pupil enrollment. The average woman principal sponsors 10.1 teachers and the man, 14.8. Schools supervised by women principals enroll, as a median figure, 363 pupils and those of the men, 522. As the pupil registration increases, a tendency to disturb the normal two to one ratio by the employment of more men, appears. Manifestly, the more important principalships are entrusted to men.

The grade groupings in vogue form an interesting study and are summarized in Table I. Men principals are employed

(1) From the data obtained, two reports were prepared: (1) *The School Principalship in Ohio Cities and Exempted Villages*, by J. Cayce Morrison; and (2) "The Status of the Ohio Elementary-School Principal," by F. Herrick Connors. The first is to be published as a university monograph; the second supplied material for this and for another article, "The Influence of the Size of City upon the School Principalship," which will appear in a later issue of this *Bulletin*.

(2) Data from *Educational Directory of Ohio*, June, 1925. pp. 89–99.

most frequently in the schools which include the first eight grades, and women principals in those having the first six grades. This may be taken as additional confirmation of the statement that the men occupy the more important posts.

In general, the educational preparation of the men is superior to that of the women. Their training beyond the elementary school covers a period of 7.3 years as contrasted with 5.9 years of the women. An analysis of educational preparation is given in Table II. Sixty percent of the women and 56 percent of the men have attended normal school. A much larger percent of the men have had college work, 61 as contrasted with 32 percent, and the proportion of college graduates is considerably larger. Seven percent of the women and 24 percent of the men have had graduate work.

TABLE I. GRADES SUPERVISED BY OHIO ELEMENTARY PRINCIPALS

Grades	I-VI	I-VII	I-VIII
(1)	(2)	(3)	(4)
Women	139	21	77
Men	42	11	82

The degrees possessed furnished corroborative evidence of the superior educational preparation of the men. Twenty-four percent of the men and 8 percent of the women possess baccalaureate degrees, while 10 percent of the men and 1 percent of the women have Masters' degrees. No elementary principal reported in this study has obtained the degree of Doctor of Philosophy. A recapitulation of these facts is tabulated in Table III.

Experience, or total educational service rendered, is a significant factor in measuring capability. The women have served, on the average, for 27.2 years as compared with 25.1 years of the men. The custom is to choose elementary-school principals largely from the teaching ranks, and their promotion is probably the reward for efficient service. Ohio elementary principalships, in accord with this tendency, are held by individuals who have had extensive experience. Men attain this rank with less experience than women. Their superior training is undoubtedly a factor tending to perpetuate this practice.

TABLE II. PERCENT HAVING VARIOUS TYPES OF EDUCATIONAL PREPARATION

Type of Preparation	Percent	
	Women	Men
(1)	(2)	(3)
1. Graduated from high school	74	61
2. Attended training class	15	5
3. Attended normal school	60	56
4. Graduated from normal school	30	24
5. Attended college or university	32	61
6. Graduated from a college or university	11	31
7. Graduate work	7	24
8. Special work	15	12
9. Summer or extension work	51	62

TABLE III. THE PERCENT OF MEN AND WOMEN HOLDING ACADEMIC DEGREES

Degree	Percent	
	Women	Men
(1)	(2)	(3)
1. Bachelor's	8	24
2. Master's	1	10
3. Doctor of Philosophy	0	0

The position of elementary principal, with its attendant responsibilities, should be assigned to mature individuals. The

Ohio practice in this instance offers an interesting corroboration, for the median age for the women is 47.6 years, and for the men, 46.5.

Consideration of marital relationships leads to significant economic factors. Of the women, 10 percent are married, while 81 percent of the men have assumed similar obligations. When the number of dependents is considered, the burden shouldered by the men is found to be much heavier than that of the women. As shown by Table IV, the average male principal has 2.2 persons solely dependent upon him for support, while the median for the women is zero. Manifestly, this situation should be considered in the matter of salary. The support of persons partially dependent does not play such an important rôle. The average for both sexes in this instance is zero. The consideration of dependents raises pertinent questions concerned with comparative salaries.

TABLE IV. PERCENT HAVING VARIOUS NUMBERS TOTALLY DEPENDENT UPON THEM

NUMBER OF DEPENDENTS	PERCENT	
	Women	Men
(1)	(2)	(3)
0	81	16
1	12	27
2	6	31
3	1	10
4	0	9
5	0	5
6	0	1

The median salary paid women elementary-school principals in Ohio for the school year 1924–25 was $1,720. The men, occupying the more important positions and sustaining a greater number of dependents, received $2,356. Previously we have seen that the women have had more experience and have served longer in their present positions. The conclusion seems inescapable that salary schedules for elementary principals take cognizance of sex.

The relationship existing between income and expenditures for the necessities of life is a vital one. The annual cost of such items is $993 for the women and $1,489 for the men. The difference existing in the number of dependents supported is an important cause of this discrepancy and is a justification of the higher salaries paid the men. In both instances the ordinary requisites for existence consume over 50 percent of the individual's remuneration.

TABLE V. MEMBERSHIP IN PROFESSIONAL ASSOCIATIONS

ORGANIZATION	PERCENT	
	Women	Men
(1)	(2)	(3)
1. Ohio State Teachers Association	88	83
2. Local teachers' association	36	40
3. National Education Association	17	63
4. Local principals' association	13	23
5. County teachers' organization	20	8

Growth in service is universally recognized as necessary for sustained efficiency. The amount expended upon professional advancement is highly significant, demonstrating, as it must, the individual's attitude towards his work. The men are slightly more zealous in this respect, for they invest annually $253, while for a similar purpose the women expend $218. The latter, however, in proportion to their income utilize a larger percent in this fashion.

The support of professional organizations fails to reveal any outstanding sex distinctions. Membership in three

organizations is sustained by both groups. Table V depicts the five most popular professional associations and the percent of each group enrolled. The most notable difference between the two groups here appears in the superior support accorded the National Education Association by the men.

Ohio elementary principals observe an eight-hour work day. The women average 8.3 hours per day at school and the men, 8.2. These figures do not include the time spent in study or on school work at home.

is summarized in the lower section of Table VI. Both men and women are agreed that classroom supervision is their most important function and accordingly assign most time to it. Teaching schedules are considerably reduced as also is the time devoted to clerical work. The most significant sex differentiation appears in the amount of time to be devoted to teaching. The women advocate a much heavier teaching load than do the men, whereas, the men would give the greater percent of time to administrative duties.

TABLE VI. ACTUAL AND IDEAL PERCENTAGE DISTRIBUTION OF TIME

Sex	Clerical Work	Administration	Teaching	Supervision	Other Duties	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Actual Time Distribution					
Women.....	10.9	14.8	48.8	18.3	7.2	100.0
Men.....	14.2	19.9	41.1	17.5	7.6	100.0
	Ideal Time Distribution					
Women.....	8.2	19.7	25.6	37.7	8.8	100.0
Men.....	8.8	24.9	17.9	38.7	9.7	100.0

A study of the time alloted to the major divisions of the principal's work discloses several sex differentiations. The distribution of effort is substantially that given in the upper half of Table VI. The teaching load of the women is heavier than that of the men, but despite this fact they devote more time to classroom supervision. Clerical and administrative duties also receive less attention from the women. On the face of the returns the women appear to budget their time to better advantage.

The principals are cognizant of the faults to be found in their present time distribution. The arrangement of their time on an ideal basis, as formulated by the principals themselves, is radically different from their present practice and

The elementary principals were requested to list the administrative duties consuming most of their time. In all, sixty different functions were enumerated, but an analysis of the tabulation revealed no significant sex factors. Both groups were in accord in listing the five items of primary consequence as (1) discipline, (2) playground supervision, (3) conferences with teachers, (4) conferences with parents, and (5) supervision of attendance.

Classroom visitation for the purpose of supervision is an important duty of the school principal. The number of such visits made and their duration are deserving of consideration. The women average 8.6 classroom visitations per week and the men, 10.6. This difference

is equalized to a certain extent by the superior length of the visits made by the women. The average woman remains in the classroom for 16.3 minutes and the average man, 14.8 minutes. Another mitigating factor is the heavier teaching schedule assigned the women.

The women reporting the number of classroom visitations made during the period of a week specified that they were usually followed by a personal interview. The record of the men in this particular is similarly good.

The men more frequently exercise supervisory responsibility for those subjects in which special supervisors are employed. This prerogative is utilized by 46 percent of the latter and 61 percent of the former. The reason for this difference is not readily apparent.

One would reasonably expect the sex factor to obtrude in the administrative relationships of the principal to the superintendent. This study, however, failed to disclose any data which would support such a presumption. Five of the primary relationships were considered, namely:

1. The selection and assignment of teachers
2. Supervision of janitor service
3. Making the daily program
4. The formation of rules and regulations governing routine matters
5. The selection of textbooks and instructional supplies

In only one of these does sex tend to make its appearance, that is the supervision of janitorial service, for a slightly larger proportion of the men report that they have supervision and control of the custodial service within their building.

SUMMARY

The elementary-school principalship offers a splendid field in which to observe the extent to which sex influences administrative practices. Here men and women work side by side in comparable positions. This makes an analysis of differentiations and distinctions feasible.

In Ohio, the women outnumber the men two to one. They have served in their present position for a longer time and have had more experience. The men fill the more important principalships as measured by the number of teachers supervised and pupils enrolled. A tendency to assign men to organizations consisting of grades I-VIII is observable. The women are found in larger numbers in schools including the first six grades. The educational preparation of the men is noticeably superior, and a larger proportion of them possess college degrees.

The women are slightly older than the men. A large majority of the men and relatively few of the women are married. The men support two individuals who are totally dependent upon them and the women, none. The average principal does not aid in maintaining partial dependents. The male principals receive, on the average, $636 more per year than do the women. This apparent advantage is largely neutralized by the amount required to be expended for the necessities of life. Because of the burdens engendered by their marital status, the men spend $596 more per year than do the women for these requisites. The men also spend more for professional advancement.

Both groups are equally loyal in the number of memberships in professional organizations sustained, with the exception that a much larger proportion of the men belong to the National Education Association.

The women principals do more classroom teaching than the men and devote less time to the clerical routine. The views of both sexes as to an ideal distribution of their time are substantially identical, although the women evince a desire to undertake more classroom teaching. Complete agreement upon the necessity of increased time for classroom supervision is indicated. The

men make more classroom visits but the women tend to observe the work for longer periods. Both groups supplement these supervisory visitations with personal interviews. Where supervisors are employed for special subjects the men more often exercise a measure of supervisory responsibility.

Sex distinctions do not seem to play an important part in the administrative relationships existing between the principal and the superintendent. A slight tendency for the superintendent to supervise the janitorial service within the buildings controlled by women principals is discernible.

THE COMPARATIVE VALUE OF VARIOUS METHODS OF DETERMINING GENERAL ABILITY IN ENGLISH COMPOSITION

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The usual method of determining efficiency in written work is, of course, to assign a theme, usually narrative, and then compare the students' papers with some standard scale for measuring quality in English composition—the Hillegas Scale, for example. There are, however, a number of difficulties in this method, the major problem being the unreliability of the results obtained. The fact that different raters vary in the values they assign to any composition is fairly well recognized.[1] That children also presumably vary in efficiency from one day to another, according to the appeal of the topic and according to the nature of the writing, is usually not mentioned. In other words, the sampling of compositions as well as the rating is unreliable. The present brief paper presents some data on the importance of these factors of unreliability in determining efficiency in English composition from a single sampling, and it compares this method of general rating with results obtained from a pooled total of scores on a set of diagnostic tests in English composition.

The teachers of two groups of children, one a group of 102 in the eighth grade of a junior high school, the other a group of 180 in the sixth grade of another school system, were asked to rate their pupils' ability in written expression by a standardized scale. In the school from which the eighth-grade results were obtained, ratings were made by the teachers of English, history, and geography, and the median rating was used as the final statement of a child's general ability in his written work. For the sixth-grade children only one rating was available, that of the room teacher. This was unusually reliable, however, since in this school system special stress was being put upon written English. The ratings in each case were obtained near the end of the school year, so that the teachers had as the basis for their judgment at least a semester's experience with the work of these pupils.[2]

(1) It should perhaps be mentioned that there may be consistent variations exhibiting idiosyncracies on the part of the individual rater, as well as variations of a chance nature. Thus in a group of teachers with which the writers recently experimented, the ratings of one (using the Willing Scale) averaged ten points below those of another. Since the rise from grade to grade is relatively slight, this meant that one teacher graded, on the average, about two grades lower than the other.

(2) On these scales the ability in question was defined as "ability to express one's self clearly, accurately, and readily in written work." In the junior high-school group, the rating scale was systematized according to the form of the army officers' rating scale. That is, the teacher was first required to select as type cases a good pupil, a poor pupil, an average case, and a case half-way between average and either extreme, and then to rate the pupils, using these cases as reference points, on a scale of 15. In the work with the sixth-grade group the definition of the ability in question was essentially the same. But since it was found in the previous work that the teachers tended to cluster their ratings around the 3, 6, 9, 12, and 15 points of the first scale, the scale was made to consist of 17 points and no reference cases were used. This gave a better distribution.

Next, certain samples of composition were obtained, from the eighth grade a narrative and a descriptive composition and from the sixth grade a narrative composition. The merits of these compositions were determined by careful comparison with the Willing Scale.

Finally, the two groups were given certain diagnostic tests in English composition. The eighth grade had a 40-point test including questions in the fundamentals of grammar, sentence structure, and punctuation and a 40-question vocabulary test designed especially for eighth grade.[1] The sixth grade had a series of four tests in the mechanics of English composition, tests in capitalization, punctuation, grammar, and sentence structure, recently developed by one of the writers.

The question, then, was "What relation exists between these various indications of efficiency in English composition?"

VALUE OF A SINGLE SAMPLE COMPOSITION

The results for the eighth-grade class were most valuable in throwing light on this topic. From this class a narrative and a descriptive composition were obtained, and they were rated by two experienced teachers, using the Willing Scale.[2]

Briefly, the results from this work showed a correlation of 0.50 between the ratings of the two judges on the total set of compositions. The correlation in merit between narrative and descriptive papers was 0.36; 0.32, according to the ratings of one judge and 0.41 according to the ratings of the other.[3] The results suggest both that the reliability of the ratings of a given teacher on a given composition was not high and that the reliability of the sampling in obtaining compositions from children was relatively low—or at least that ability in narration is not quite the same as ability in description.

The various ratings were next correlated with the average of the teacher's estimates of ability in written expression. The correlation of this average with the ratings of the first judge on the narrative composition was found to be 0.29; with the ratings of the same judge on the descriptive composition the correlation was 0.33. This first judge was the more experienced English teacher and was the more experienced in the use of the scale—and her results were not influenced by any special arrangement of the papers, as a previous note mentioned—so these correlations seem to indicate the possibilities of this method. It should be added, however, that a correlation of the average of these two ratings with the estimates gave a coefficient of 0.45. This certainly suggests that the massing of such material, supposing it were practicable, would give more reasonable indication of ability in expression.

For the sixth-grade group the ratings on the narrative compositions were made by six different judges and the results were averaged. The correlation of these average ratings with the estimated

(1) The tests in question were two tests of the eighth-grade attainment scale developed by the writers four years ago. (See Pressey, S. L., "Scale of Attainment No. 2—An Examination for Measurement in History, Arithmetic, and English in the Eighth Grade," *Journal of Educational Research*, 3:359-69, May, 1921.)

(2) It may seem strange that the descriptive compositions were also rated by comparison with the Willing Scale, a scale which is made up of samples of narration. This was done partly because cross comparison, for certain purposes, seemed easier if the same scale was used, partly because one of the raters was already highly experienced in the use of this scale, and also because there was, at the time this work was done, no other scale covering description which seemed satisfactory for the problem in hand. It was felt that though this was a fault in the method it was a relatively negligible one and was almost inevitable in dealing with the problem as we desired.

(3) The reason for the higher correlation given by the less experienced second judge is probably simple enough. The first judge rated all the narrative compositions, then all the descriptive compositions. The papers were next paired, the narrative and descriptive compositions of each child being put together, for purposes of correlation in studying these first ratings. The second judge took the papers in this order. The result in such a situation would naturally be to raise the correlation somewhat, particularly as a judge almost inevitably finds himself using somewhat different criteria as he proceeds through a series of compositions; the same composition would probably be judged differently at the beginning and at the end of the series—at least that has been the writers' experience. With the first judge there was such a separation of papers belonging to the same child; with the second judge there was not.

ability as judged by the room teacher averaged 0.40, the correlation being calculated separately for each class in order that differences in standard from one teacher to another might not lower the correlation. In studying these sixth-grade compositions the number of errors per hundred words was also found as suggested in using the Willing Scale. The correlation of this statement of frequency of errors with teachers' estimates was 0.59.

The above results surely suggest at least that ratings on a single composition made by a single judge cannot be considered a satisfactory basis for determining ability in written composition—and of course, in the ordinary use of these scales by a teacher there is only one judge. The question then arises whether any other methods might be expected to give a better general statement of ability in composition.

THE VALUE OF POOLED RESULTS FROM DIAGNOSTIC TESTS

In the eighth-grade group it will be remembered that a vocabulary test and a good-usage test were employed. The correlation of the vocabulary results with estimated ability in written English—average of the ratings of three teachers—was 0.56. The correlation of the good-usage test with estimated ability was 0.54 and that of vocabulary with good usage was 0.56. The correlation of the combined score, good usage and vocabulary with average estimates, was 0.72. In the sixth-grade group the average correlation of the total results from the four diagnostic tests with the teachers' estimates was 0.70.

Various inferences obviously could be drawn from these correlations. It might be argued that the teachers' estimates on the scale for rating ability in written expression, were based on too much consideration of accuracy in mechanics; but of course any such prejudice would also show itself in judging compositions by comparison with a composition scale. The difference between the correlation obtained by means of the usual procedure and the correlations obtained by the use of pooled results of diagnostic tests seems too large to be entirely without significance. Moreover, the use of objective tests simplifies the work when one teacher does the rating and increases the possibility of using norms. Indeed, the writers doubt whether norms can, where only one judge rates a series of compositions, fairly be considered at all, since investigation almost always shows some judges rating consistently too high, and others too low, and it is hard to determine when this is happening.

INADEQUACIES OF THE "GENERAL" TEST

The writers feel that certain complex abilities are too complex to be satisfactorily measured by means of a general test, assuming an expenditure of time and effort within practical limits. When a general rating is desired, in any work where results from individual pupils are to be considered, it is well to give a number of tests dealing with the various phases of the ability and then combine the results, rather than to attempt by a general test to get a total statement of this ability. This conclusion applies, the writers are inclined to feel, in English composition, and in reading above the first four or five grades.

What seems to be needed, then, in attempting to develop measurement in English composition, is not more scales of the type of the Hillegas, but an analysis of the total complex to formulate separate tests for each important factor involved. Of course, a further advantage of this method of approach is that in such a development the results of each separate test are also valuable, independently, for diagnostic purposes.

SUMMARY

The paper deals with the comparative merits of ratings of sample compositions by means of composition scales, of the Hillegas type, and the pooled results of diagnostic tests, as indicators of general ability in written expression. The data involved are (1) sample narrative and descriptive compositions and test results from 102 eighth-grade children together with estimates of their ability in written expression made by their teachers, and (2) sample narrative compositions, results of a series of diagnostic tests, and teachers' ratings, from 180 sixth-grade children in another system. The findings were as follows:

Ratings by different judges of the same compositions correlated 0.50. Those on narrative and descriptive compositions by the children correlated 0.36. Correlations of estimates of ability averaged 0.31 with ratings by one judge, 0.40, with average of six ratings, and 0.71 with the pooled results of diagnostic tests.

The writers, therefore, suggest that determinations of total ability in complex functions, such as composition, or upper-grade reading, are best obtained by pooling results from diagnostic tests rather than by use of a general or survey test.

NEW TESTS

The Giles Recitation Score Card, based upon a broad definition of recitation, attempts to include in a single rating scheme the typical activities and attitudes of teacher and pupils during a class exercise. It proposes to present a scheme of self-analysis for the teacher as well as to provide a basis of discussion between teacher and supervisor.

Of the five divisions of the scale the first two are concerned primarily with the teacher's activities, the third refers chiefly to those of the pupils, and the two last deal with activities of both teacher and pupils. The titles given to these sections are: (A) Arrangement of Physical and Personal Surroundings; (B) Arrangement of Immediate Conditions for Learning, including Presenting of New Materials as well as Working over of Material Previously Studied; (C) Use of Ideas and Tools by the Pupils; (D) Use of English Language; and (E) Attitudes of Teacher and Pupils.

Each section has several subdivisions which are carefully defined by the author. The five-point scheme of rating proposed ranges from Far above Average which is defined as the upper 10 percent and is given a value of 5 points, to Far below Average which is defined as the lowest 10 percent and is valued 1.

This score card devised by J. T. Giles, Wisconsin State Supervisor of High Schools, is published by the World Book Company, Yonkers, New York.

The Chapman Unspeeded Reading Comprehension Test for grades v to XII, devised by the late J. C. Chapman, of Yale University, is published by the J. B. Lippincott Company, of Philadelphia.

This test consists of 31 paragraphs of about equal length from which, in the light of experimentation, the author removed all difficult words, unusual construction forms, or references to information outside the experience of the pupils. The purpose was to prepare a test to measure the complex ability, speed of reading, and nothing else, for material of this degree of difficulty. In an article in the *Journal of Educational Research* for December, 1923, the author discussed his purpose in devising this test and the care exercised in determining its final form. The directions are most simple: "Cross out the one word in the SECOND PART of each paragraph which spoils the meaning. Work very carefully. Speed does not count."

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EDUCATION BY RADIO

Radio is one of the inventions which has made marvelous progress during the last few years. We would be astonished at the growth in the volume of business, in the increase in number of stations, and the multiplicity of programs were it not that we have become so accustomed to phenomenal development of new enterprises that we are rather blasé. As receiving sets have been perfected and prices reduced, the number of homes equipped with radio has proportionately increased. The chief uses to which it has been put, however, have been commercial and recreational. The entertainments have ranged from addresses by great lecturers and noted divines, and music of the highest order to bed-time stories, comic readings, and jazz. While many have suggested the educational possibilities of radio, only sporadic efforts have been made to utilize it in an organized way.

Last spring the State Department of California broadcast a spelling contest to the schools of that state. In Berkeley an experiment was tried out in classroom teaching of certain subjects by means of radio. The State University of Iowa is giving regular extension courses in English, psychology, and other subjects by this means. One of the state institutions in Kansas broadcast a school program at regular intervals during the past year. Doubtless other instances might be cited to show what is being attempted in various places to give academic education by radio.

The Crosley Radio Corporation of Cincinnati has recently announced regular weekly educational programs for the elementary schools from Station WLW. On Monday, Tuesday, and Friday from nine to nine-thirty they expect to broadcast lessons in musical appreciation, agriculture, calisthenics, and other phases of elementary-school work. The faculty who will furnish the material are drawn from the University of Cincinnati, Miami University, Ohio State University, Cincinnati College of Music, Earlham College, and Purdue University.

While doubtless the Corporation is essentially interested in the sale of its radio sets and supplies, yet the personnel of the group who will present the elementary-school program guarantees a class of educational material which is worthy of the attention of the school people within the territory to be served. We shall be curious to know the extent to which schools, especially in villages and rural districts, will become equipped to avail themselves of this opportunity. We shall also watch with interest the reaction of the school people as to the advisability of using thirty minutes in the morning, three days a week, for education from the air. E. J. A.

The American Council French Test, Form A, consists of two leaflets: Part I, a vocabulary test devised by V. A. C. Henmon and a grammar test by Algernon Coleman; Part II, a silent reading test also devised by Mr. Coleman.

These tests have been prepared for use in the Modern Foreign Language Study which is being made under the auspices of the American Council of Education and the Conference of Canadian Universities. The leaflets are issued and distributed by the World Book Company, Yonkers.

A PROGRAM FOR THE OHIO STATE UNIVERSITY APPOINTMENT SERVICE

J. L. CLIFTON
Ohio State University

In writing about the appointment service at Ohio State University it would be natural to tell something of its past achievements. This would make an interesting article for a few people, but it would not meet the present purpose of this *Bulletin*. Whatever service the Appointment Bureau has rendered in the past, and whatever its faults and mistakes have been, will be passed by for a more immediate problem.

The Appointment Bureau at Ohio State University has been placed under the direction and management of the Bureau of Educational Research. This action was taken by the Board of Trustees on recommendation of the University faculty. The transfer took effect July 1, 1925.

The two principal policies of the Appointment Service up to the present time have been the enrollment of all persons who asked aid in obtaining teaching positions and the attempt to place them in positions for which they were best fitted. The function of a placement bureau would seem to have been accomplished if these two things were done, but after years of experience it becomes more and more apparent to the writer that something fundamental is lacking. This is also the conviction of the leaders of the College of Education. No one questions the fact that the great majority of superintendents and boards of education have obtained fine teachers from Ohio State University. Numbers of Ohio State's graduates have been placed in desirable positions. Then why is the Appointment Service not yet efficient? Only a few of the needed changes in action and policy may be mentioned here.

When a superintendent asks for a recommendation from our Placement Bureau, it is our duty in fairness to the superintendent and to all the prospective teachers registered, to use a mechanical device to turn out the credentials of those on the available list. The Bureau is installing a Findex System in order to insure this impersonal service. A permanent record of each person registered thus will be kept. All academic records will be obtained and filed. Every other item of interest to employing agencies will be collected. While the good in all applicants greatly overshadows the frailties, both will by this system be on record.

Standards are being set up, and only those who are qualified and who can produce satisfactory references will be allowed to register. It is perhaps impossible completely to eliminate from graduation all who are not well qualified, yet the Appointment Service need not be granted them.

Many graduates of the College of Education at Ohio State University are teaching in positions where their influence is limited. We expect in the future to follow up such graduates and, when promotion is merited, offer our services and advice for their advancement. This plan of action will work to the advantage not only of the teachers of marked ability, but also to the schools.

In the past the Appointment Bureau has not had sufficient qualified and experienced teachers to meet the calls. In fact, there has developed a feeling among principals and superintendents of the larger schools that the Appointment Service is for inexperienced graduates. As long as our services are limited in this way our work is only

half done. The Graduate School is rapidly coming to the front with many teachers splendidly prepared in specialized fields, who must be given the benefit of expert service in proper locations. To meet this problem, the Appointment Bureau must build up a more definite confidence in this aspect of its work, on the part of the employee and employer.

Statistical information will be compiled in reference to the demands for teachers. Advice to undergraduates will then be possible, suggesting the best fields to enter, as far as opportunity is concerned. This advice will also be available to students who study for advanced degrees. There is nothing more demoralizing to the profession than to have teachers well prepared in a given field and to have no possible opportunity for them to find positions. The Appointment Bureau Service must extend its services to include assistance to the students in the high schools who need direction and advice in the matter of the proper background for teaching, on the one hand, and to location of candidates for advanced degrees, on the other.

One of the most difficult problems to be solved is that of the proper combinations of subjects. Students give too little concern to their majors and minors when preparing to teach. Few students have interests so intense that they would build up a program of study which would definitely handicap them in their future work, but our problem is to place before all students preparing to teach, definite facts concerning the demand for certain combinations of subjects. Most beginning teachers are called upon to teach at least two subjects. If one of these is well chosen, and the other not called for in combination, the candidate loses good opportunities. This has caused many disappointments in the past. Our purpose is to cure this fault by furnishing the proper data to those who need them. Persons who are definitely prepared to teach should have preference over those who plan to teach for only one or two years, and who meet the minimum requirements to that end. We have at the present time too many teachers who are not professional in their attitude and purpose. We plan to help them either to get into the profession or out of it.

The program we have outlined must have the support of all the people interested in education, if we are to succeed in our efforts. To that end we ask for your cooperation, support, and advice.

THE GRAPHIC INTERPRETATION OF TEST SCORES

S. S. BROOKS
Ohio State University

Ever since standardized tests first began to be used widely as recognized valid instruments for measuring and evaluating school work and as aids in supervision and classroom instruction, interested school people have cudgeled their brains to devise ways and means for realizing the greatest benefits from the test results with the least expenditure of time and effort. Several real and definite ways in which test results might be used to good purpose by school administrators and teachers were early recognized: (1) measuring the progress of pupils, (2) measuring the efficiency of teachers, (3) classification of pupils, (4) diagnosing difficulties of individual pupils in the subjects tested, (5) rating the comparative efficiency of schools and school systems, (6) determining the relative efficiency of special teaching methods, (7) motivating the work of

teachers and pupils, and others equally important.

It also early became evident that if these values were to be generally realized, some means must be found of interpreting test data in a manner easily comprehensible to teachers, pupils, and parents and that without prohibitive expenditure of time and energy by workers already kept busy enough by their daily tasks. Authors and publishers of tests furnished so-called "Class Record Sheets" and other material, often complicated and time-consuming, with directions for recording and evaluating the scores from a particular test. It is difficult, however, to get an illuminating general view of the situation from such records, and the identity and significance of individual scores are frequently lost in the process of recording and subsequent manipulation of data. But the records of individual pupils are probably of greater importance to teachers and supervisors than are mere class records. Certainly, they are more important to the child and his parents.

Research workers in education borrowed from the biometricians statistical procedures suited to their purpose, such as measures of variation and central tendency, coefficients of correlation, and regression equations, and applied them to test data with results both interesting and valuable from a theoretical viewpoint. Such measures, however, have been of little practical use to the worker in the field for several reasons: (1) He usually is untrained in statistical methods. (2) He hasn't the time to use them even if he knew how. (3) The results are not easy of interpretation to the teachers, pupils, and parents. Also, in general, they fail to take much account of individual scores, although some of them, such as standard deviation and percentile rank, can be made to do so if one knows how to go about it.

Practical school men have, therefore, been forced to devise methods of their own for handling test data which, after all, is probably a good thing. They needed a simple, easily understood scheme of recording test scores in such a way as to show graphically at a glance on a single sheet, the standing of a pupil, a class, a school, or a school system in relation to grade standards together with as many other significant facts as possible pertaining to the situation. One of the most troublesome obstacles in the way of attaining their object is the fact that although the tests have been standardized, their scores have not been standardized. In other words, the point scores of the various tests are not directly comparable as raw scores. They may be made comparable, of course, by proper manipulation, but that involves special knowledge and training on the part of users of the tests, which most of them do not have and are not inclined to acquire. It also takes unnecessary time.

What was needed was a simple graphic scheme by which to translate point scores directly into terms of grades and rate of progress without the necessity of any extensive or complicated calculations. It is beyond the scope of this article to enumerate all, or even a large part, of the many attempts to solve the problem. Available space limits us to brief mention of a few devices that have been proved notably successful in actual practice. There are probably others of which the author has no knowledge. One of the earliest recorded attempts to translate raw scores directly into grade scores by means of a composite graph showing the pupil's grade standing in several subjects on a single sheet was that of S. A. Courtis in connection with his reading and writing tests and the Cleveland Survey Tests in the Fundamental Operations of Arithmetic.[1]

(1) Monroe, W. S. *Measuring the Results of Teaching.* Boston, Houghton Mifflin Company, 1918. 151 pp.

Several years later, in 1918, to be exact, a study of Courtis' crude scheme in connection with his own supervisory problems suggested certain possibilities to the present writer which resulted in the preparation of what we believe to be the first individual graph record card meeting the before-mentioned requirements to be used extensively throughout an entire school system over a period of years with marked success as an essential feature of a comprehensive periodical testing program.[1] This card is fully described as to form and use in the *Journal of Educational Research* for October, 1921.[2] The use of this card requires no calculations whatever. The scores are transferred directly from the tests to the card and are thereby automatically translated into grade scores showing at a glance just how far above or below standard a pupil is in each subject tested in terms of grade progress. By using class scores or grade scores instead of individual scores, the same facts may be shown for whole classes or grades on a single card. The cards are so simple to use that any person of ordinary intelligence can use them without special training, and we have had no difficulty in getting even third-grade children to read the graphs understandingly so that they could tell how far above or below grade they were in any subject.

The only marked improvement over this card that we know of is one recently devised by Van Scoyck and Young.[3] The general form of this card is shown in Figure 1, in which the vertical lines represent the subjects tested, age, grade status, height and weight, etc., and the horizontal lines, the grades from II to VIII. In the vertical columns are printed the standard scores of each test for the various grades. When the scores have been indicated on the cards by means of circles properly placed, the graph is made by connecting the circles with straight lines as shown in the figure. In order to make the graph easier to read, the horizontal line representing the grade of the child whose scores are being recorded is over-ruled with a heavier line. By using graphs of different colors, the results of several testings may be recorded on the same card, thus showing the child's progress from one testing to another.

Fundamentally this card is the same as the Brooks card in form, purpose, and means of attaining that purpose. It is superior to the latter, we believe, since it provides more complete graphic representation of related facts in a somewhat more exact manner. Also it has the characteristic feature of permitting the raw scores to be recorded directly without calculation or use of tables and at the same time admits of their interpretation in terms of B-scores by means of the figures in the last column. The first named advantages were sacrificed in the Brooks card for the sake of greater simplicity. B-scores were unknown when the Brooks card was designed. If, however, I had occasion to use such a card, I would use that of Van Scoyck and Young or revise my own. Many users of tests object to such cards because they contain the names of and standards for definite sets of tests, some of which they prefer to replace with others more to their liking. It seems to be an unavoidable disadvantage of any individual graph record card which is to be used successfully under practical working conditions, that it must contain a definite list of tests with their standard scores printed directly on the card. Otherwise, their use would be too burdensome to be practical under ordinary circumstances. This is really no

(1) The Brooks Individual Graph Record Card published by J. L. Hammett Company, Cambridge, Massachusetts.

(2) See 4:161–72, and also the author's book *Improving Schools by Standardized Tests*. Boston, Houghton Mifflin Company, 1922. p. 32ff.

(3) Van Scoyck-Young Permanent Test Record Card probably obtainable from Dr. Wm. L. Young, head of the Department of Education, Capital University, Columbus, Ohio.

drawback whatever to a school system of any size, because the cards would ordinarily be printed on a cut that would cost not over $25, so that cards to fit special batteries of tests could be printed for school systems desiring them. If, however, one *must* have a form of card with which *any* test may be used, we refer him to the forms described by T. V. Goodrich.[1]

however, calculations and the use of tables which are really unnecessary as we have proved in several years of practical experience.[3] Some test users prefer to use more general forms of graphic test records instead of, or in addition to, the individual graph record cards. In this connection, two outstanding devices have been recently published. The "Q-Score Table and

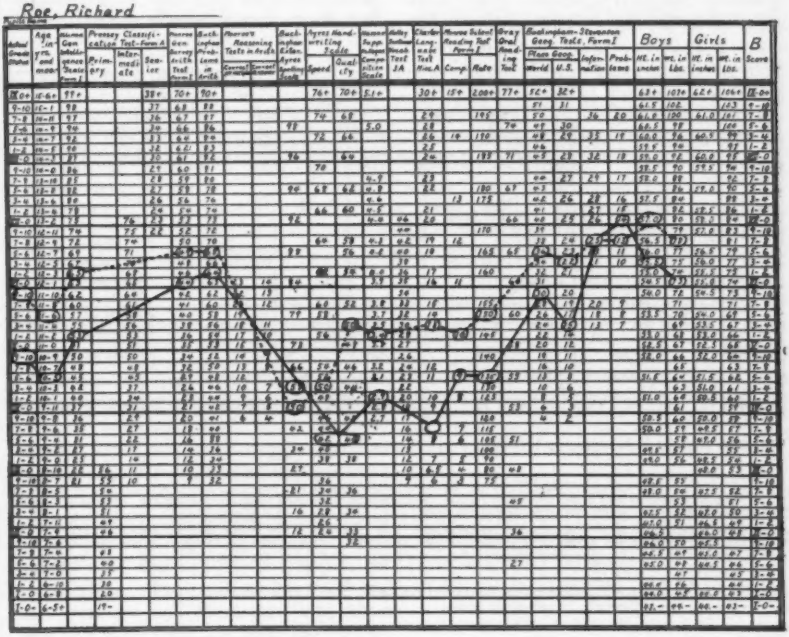


FIGURE 1. VAN SCOYOC-YOUNG PERMANENT TEST RECORD CARD

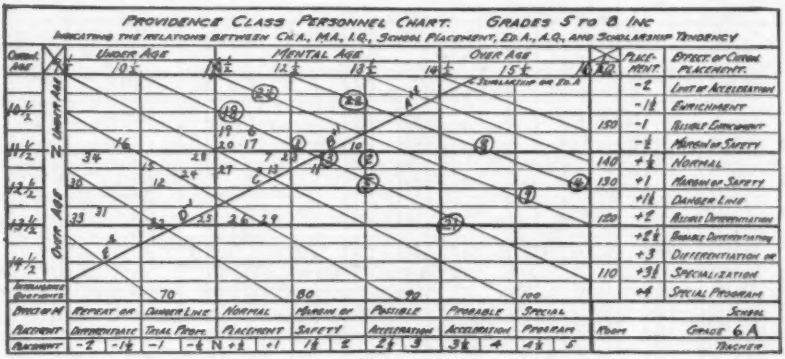
They are the most practical forms of their kind with which we have any acquaintance. They are made up in accordance with the ideas suggested in Buckingham's article in the same journal for December, 1920.[2] They involve, Score Sheet" used by the Trenton, New Jersey, Department of Educational Research and Efficiency, is, we believe, unique in the amount of significant related data which, when properly filled out, it presents and interprets on a single sheet about 15 inches square. Although it must be seen to be appreci-

(1) Goodrich, T. V. "Putting Test Scores in a Form to Facilitate Comparisons," *Journal of Educational Research*, 8:377–88, December, 1923.

(2) Buckingham, B. R. "Suggestions for Procedure Following a Testing Program." *Journal of Educational Research*, 2:787–801. December, 1920.

(3) Brooks, S. S. "Using Standardized Tests in Rural Schools for Grading Purposes," *Journal of Educational Research*, 2:729–35, November, 1920.

ated, it is too large to reproduce here. In addition to a composite scatter-diagram for chronological age, mental age, educational age, and intelligence quotient, educational quotient, and achievement quotient, the following facts are presented: (1) the I. Q., E. Q., and A. Q. for each pupil and for the class; (2) the I. Q., E. Q., and A. Q., grade status for each pupil and for the class; (3) the C. A., M. A., and E. A., for each pupil and for the class; (4) the C. A., M. A., and E. A., spread and median for the class; (5) the C. A., for each pupil and for the class; and (6) all the age and Q-score distributions of the class.



The diagnostic possibilities inherent in this chart appear to be great and withal it is not necessary to lose the identity of individual scores in the recording process.

A simpler and much more compact form of general record is exemplified by the "Providence Class Personnel Chart."[1] This little chart when filled according to directions presents an interpretation of an amazing amount of data in a space 3½ x 8 inches. In fact, although of somewhat less simplicity and refinement, it gives almost as much information of a diagnostic sort as does the Trenton chart on an area eight times as large. The chart with complete directions for using on front and back is printed on 5 x 8 cardboard which makes it very convenient for filing. For accurate statistical work, the Trenton chart is probably superior, but the smaller size and less complicated appearance of the Providence Personnel Chart makes it perhaps more convenient for classroom use and the principal's office.

The Trenton Chart, however, is not as complicated as it looks at first sight. Except for its less convenient size and

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Date.....

Directions: On heavy lines marked "N" fill in the normal chronological and mental ages of the grades at the beginning of the term then indicate ages above and below normal. Indicate each pupil in the class by a circle "O," or a serial number "7" in case of a problem pupil in the position on the chart which corresponds with his mental and chronological ages. The I. Q. is estimated by the position of the "O" between the I. Q. diagonals. The heavy diagonal marked "scholarship or education age" indicates the tendency of educational ages (exponents) or scholarship (letters) of pupils relative to their mental ages and grade. An educational program for each pupil is indicated at the bottom and in the last column at the right.

FIGURE 2

(1) This card was devised by Richard D. Allen, director of guidance, Providence, Rhode Island, public schools, published by J. B. Lippincott Company, Philadelphia.

shape, it has no disadvantages and does have some decided advantages in regard to more definite placement of scores in comparison with the Providence Chart. Figure 2 illustrates the Providence Chart together with a typical distribution of scores for an ordinary unclassified sixth-grade room.

The problem cases stand out to good advantage, and each pupil's position is clear. It can be seen, for instance, that pupil No. 1 has an I. Q. of 110, is of approximately normal chronological age for the grade, but overage one year mentally. Intelligence quotients are read from the positions of the numbers in relation to the diagonals. Notice that in this class pupils of the same chronological age differ in mental ages and intelligence quotients, that pupils of the same mental age differ in chronological ages and intelligence quotients, and those of the same intelligence quotient differ in both other elements. Pupil No. 18 is accelerated a year beyond the normal chronological age of the grade, while pupil No. 21, with the same intelligence quotient, is two years retarded. Although he is three years older mentally and chronologically than his classmate, he is relatively three years behind him in school.[1]

Pupils 22, 24, and 4 are also made to stand out clearly as problem cases.

All the types of cards described here have been carefully designed to meet definite needs which prevailed in most school systems where standard tests are used. They have been proved successful in actual practice. If there are others as good or better, the Bureau of Educational Research would be glad to know of them.

IS SCHOOL PUBLICITY WORTH WHILE?

P. R. STEVENSON
Ohio State University

Consciously or unconsciously, the school administrator has been experimenting with school publicity for many years. Good and bad news emanates from a school system whether we wish it or not. Early American school patrons knew something about their school through pupils, teachers, and others who did or did not know the actual facts. Each system has good and bad qualities, and the latter have often received more attention than the former. Especially is this true when the administrator leaves the taxpayer to find out what he can from prejudiced sources.

For several years many school superintendents have given particular attention to the matter of informing the taxpayers concerning their schools. Several books and many articles have been written on the subject. From a recent book we read:

Educational progress in America rests almost entirely upon the understanding which the American public has of its school system . . . Every educator should be familiar with the important avenues which, if intelligently utilized, can bring the public into much closer contact with its system of popular education.[2]

How much we have learned from this experiment in school publicity is not definitely known. One superintendent in a large city writes:

It is my opinion that the art of school publicity is yet in its infancy. School men, in general, are unacquainted with its technique, both as to the methods to be used and the points to be emphasized. The average citizen is still uninformed of the purpose and procedure of the schools. He is the man whose support the school must have and to whom the information must be carried.

Further confirmation of the fact that all the problems of school publicity are not settled was given by Glenn

(1) From the Manual accompanying the Providence Class Personnel Chart.

(2) Miller, Clyde R. and Charles, Fred. Publicity and the Public School. New York, Houghton Mifflin Company, 1924. p. 1.

Frank in an address before the National Education Association, Thursday, July 2. He said:

I suggest, therefore, that we stop centering our energies on trying to wheedle the newspapers into giving more space to the schools; that we do our best to do things in our schools that will be so vital that newspapers will take the initiative in giving more space to our activities, and that we try to make it increasingly clear that press and school have a joint responsibility in seeing to it that there is thrust into the stream of public thought, in terms that men who haven't a Ph. D. can understand, those new ideas, new idealisms, and new spiritual values that have been thrown up as by-products of the sciences, philosophies, and practical adventures of the modern mind.[1]

It is safe to say that the majority of superintendents believe in continuous school publicity. There are, however, a few who think of publicity only in connection with some kind of campaign. The following extracts from school administrators' letters illustrate this point.

"Publicity for school purposes seems to pay in most instances. I have found it effective and necessary several times."

"We do not make much general use of publicity except on such occasions as the floating of a bond issue, the proposed furnishing of free textbooks, and the like."

Criticisms offered on present-day school publicity by superintendents may be classified under a few headings. The ones most frequently mentioned are: (1) It contains too little news value. (2) It is too noisy and often runs to excessive bulk. (3) Too much of the publicity advertises an individual and not the schools. (4) Some school publicity is false propaganda. Two superintendents lay special stress on the fact that school publicity must have news value.

"No matter in what form it is issued, it should have news value and be interesting."

"For school news to be of 100-percent value, it must be natural, timely, and without effort to gain special approbation from the public . . . . We have been careful to have everything that is published concerning the schools appear in the light of real news."

Some have objected that school publicity frequently is too much like the advertising of patent-medicine concerns, and that there is too much of it. For example, one administrator says:

I am not in accord with the bond advertising of the public schools. The schools belong to the people of the community and not to some school men. Good work will bring greater dignity and a better opinion of the school in the long run.

Another reports that "there are places where the dissemination of school news has been overemphasized."

Some critics indicate that some so-called school news is in reality personal advertising. The following are illustrations:

"Unfavorable reactions to school publicity are generally due to an attempt to glorify an individual."

"If each superintendent would depend upon publicity to feature schools and not the individual superintendent, it would leave a little better taste in the mouth of the public."

Several implications have been made either directly or indirectly that certain types of school publicity are mere propaganda of a questionable sort. That there should be any occasion for such an implication is to be deplored, but it simply means that school men must set up, as the commercial men have, a code of ethics dealing with the specific problem.

The following extracts from letters of school men represent possibilities of malpractice:

"It is bad policy to force the attention of the general public to school matters with the accompanying feeling on the part of the public that perhaps the schools have weaknesses to conceal."

"In a number of cases, I believe that school publicity is overdone. Some superintendents have developed a 'circus' type of advertising of their schools. I mean that they have made a lot

(1) *Journal of National Education Association*. 14:205, October, 1925.

of statements which could not be substantiated by a visit to their own system. It seems to me that superintendents who do publicity work should be sure that their publicity contains no statements that cannot be absolutely verified by any intelligent layman."

"School publicity, if it represents an honest effort to present significant school work to the public in an interesting way, is of the greatest value. Considerable harm is being done, however, in some places, through publicity for the sake of making a noise, as represented by pseudo-curriculum revision and other projects which the school organization is not in a position to undertake with success."

"We strive to keep our publicity work strictly on an educational plane. We make a clear distinction between information and propaganda. We feel that any unfavorable reaction that may come from the growing use of publicity in public-school work will come as a result of distortions of fact in an effort to favor the policies of some particular group. But certainly there could be no real objection to the publication of information which can be supported by data scientifically derived and interpreted."

Now that we have discussed some of the failures in current school publicity, it should be refreshing to read some favorable remarks as to the function of school publicity. The following are a few of the many opinions expressed by superintendents:

"The subject of school publicity was the only topic discussed at the November, 1924, meeting of the New England Association of School Superintendents. A great deal of emphasis at that time was laid upon the necessity of the right sort of publicity for the schools, if the schools are to be presented fairly to the public attention and if they are to receive good publicity to offset much of the bad publicity." (New Haven, Connecticut).

"My judgment is that there is nothing more effective in promoting the interests of the schools than giving the fullest publicity to every forward step taken or proposed."

"Our general reaction to the extensive use superintendents are now making of publicity for school purposes is that we cannot do too much to acquaint the public with school problems and the attempts we are making to meet such problems."

"I believe that any money spent in informing the voters of what is being done with their money is well worth while."

"We believe in giving the people the facts about their schools and, as a rule, we have their hearty support."

"Publicity in our organization is entirely a by-product. We have no official whose business it is to look after this matter and no department within our system. I believe that the weakest point in our system is the lack of a publicity department."

"We thoroughly believe in advertising the schools and their product. We want to believe that the school is the leading business of the community."

"We are firm believers in school publicity and have the splendid cooperation of our daily papers and civic organizations."

"I am satisfied that publicity has produced results in our city and that it will do the same thing in other places."

Summary.—Practically all superintendents agree that some type of school publicity is necessary to show the public what the schools are attempting to do. Some practices now in vogue do not commend themselves to all school men, but the question of efficient school publicity has not been entirely settled.

A STUDENT CARD INDEX

Mr. E. B. Downey, a member of the high-school staff, Cleveland Heights, Ohio, has devised a scheme for keeping an up-to-date card index of material for his biology classes. Toward the close of each semester Mr. Downey requests the classes which are completing the course to contribute a week or ten days toward the cataloguing of the biological materials. These materials are collected from two hundred books and the bound volumes of eight periodicals which are found in the high-school library. Mr. Downey reports that the file is now about complete to date and contains approximately ten thousand references. The fact that the students are proud of their work and feel that they have made a real contribution to the coming classes is a by-product of Mr. Downey's plan.

EDUCATIONAL READINGS

BURKE, BARBARA S. *A Scale of Promise and Its Application to Seventy-one Nine-Year-Old Gifted Children*, PS, 32:389–413, September, 1925.

This study proposes to "illustrate the significant personality and character differences that exist among children of high mental endowment, to construct the scale of promise which would take account of these and other differences of condition, and to apply the scale to a group of children whose subsequent careers could be followed for the many years needed to test the validity of the scale."

The selection, evaluation, and application of the scale is described in detail. Seventy-one subjects with intelligence quotients of 140 or better were used. The conclusion presents three condensed case summaries of the application of the scale to particular children. It was found that "the least promising of them seemed to show less promise than the average child, while the most promising probably compare favorably with very eminent men in their childhood," that the average promise scores of the boys were higher than those of the girls, and that no significant correlation is found between promise score and intelligence within the intelligence range of the subjects of the study.

The scale proved to have a reliability of .94+.02 for use in predicting future success. Its validity of course, cannot be determined until the subjects have reached maturity and, as is planned, their achievements are checked against the prediction of the Promise Scale.

KILPATRICK, WILLIAM H. *What Range of Objectives for Physical Education?* TCR, 27:6–14, September, 1925.

This well-known writer divides the educative process into three parts: (1) an educative experience; (2) the educational outcomes; (3) the changed subsequent experience. After considering health habits, in terms of this analysis, and concluding that they belong to the second group, the author contends that the objectives for physical education must include the more remote and intermediate objective (group 3) as exemplified in aims lying outside the distinctive field of physical education, namely, morals, and the other finer traits of character.

STRAYER, GEORGE D. *Creative Administration*, TCR, 27:1–5, September, 1925.

Here is a potent essay which has for its theme constructive leadership. Its spirit is best expressed in the following epigrammatic excerpts:

"Administration does not consist in organizing a machine to grind out a fixed product."

"It is true that good administration will require that schools be organized in such manner as to make possible the maximum of result in the experience of the children attending the schools."

"The administrator, if he is to be successful, must see each person and each job to be done in relation to the whole undertaking."

"The one most important criterion by which to judge of the work of the administrator is found in the query, 'Have those who have been associated with him grown?' "

DIAMOND, THOMAS. *Do Our Vocational Schools Prepare for Vocations?* SR, 33:594–600, October, 1925.

A report of the placement department of a prominent vocational school for 1923–24 is the source of the author's data. One hundred and thirty-two boys form the basis of the study, which includes such items as relation of placement to type of training received, time on the first job, reasons for leaving jobs, wage changes as a result of changing jobs, types of jobs secured, and school attainment of candidates. The article concludes with eight pertinent questions which those in charge of vocational schools should consider.

DICKINSON, CHARLES E. *A Study of the Relation of Reading Ability to Scholastic Achievement*, SR, 33:616–26, October, 1925.

This is a statistical study of the relationship between scholarship as measured by teachers' marks and reading ability as revealed by standard tests. A positive correlation is found. The author believes that more attention should be given to silent reading and word study in the sixth, seventh, and eighth grades and that this work should not be discontinued in high school. Such practice would tend to overcome certain scholastic difficulties which are contributory reasons for pupil elimination.

O'BRIEN, F. P. *Employing Student Criticism in Revising Courses in Education*, EA&S, 11–6:394–98, September, 1925.

In order to obtain a partial basis for revising and improving the prescribed courses in the fundamentals of education at the School of Education, University of Kansas, a questionnaire was submitted to 280 former students who had taken these courses. The students were asked to list the different subjects according to their functional values in classroom practice.

NOTE.—The abbreviations used in this number are: PS, Pedagogical Seminary; TCR, Teachers College Record; SR, School Review; EA&S, Educational Administration and Supervision; E, Education; and ASBJ, American School Board Journal.

The combined judgments of 114 of the more experienced of these teachers placed the subjects in the following order, that of the greatest value coming first: (1) educational psychology, (2) educational measurements, (3) educational sociology, (4) school administration, and (5) history of education. The courses were revised accordingly.

GANDERS, H. S. *What Is to Take the Place of Bureaus of Research in the Administration of Schools in the Smaller Cities*, EA&S, 11:421–25, September, 1925.

This brief article offers practical suggestions for meeting the needs of communities too small to support research departments of their own and which do not have persons with the requisite training and experience available within the school system to carry on such work. The suggestion is that superintendents in smaller city-school systems urge departments of educational administration in our state colleges and universities to establish bureaus of educational surveys which would serve them, as bureaus of research in the larger cities serve the school systems of which they are a part. The article cites instances of such work actually being carried on successfully and lists many benefits to be derived from such practice.

STOCKWELL, S. S. *A Normal-School Experiment with the Dalton Plan*, E, 46:12–17, September, 1925.

In an attempt to make the study of the history of education more interesting the Northern State Normal School of Michigan tried teaching it by the Dalton Plan. The report of this experiment is well organized, brief, and to the point. The students liked the plan, and it developed their knowledge of subject-matter, their mental power, and moral control. Impartial criticisms, both for and against the method, are presented. No student failed in the course. Interest and free discussion were stimulated. Students and instructor were brought to better understanding and happier relationships.

CLARK, HAROLD F. *Suggestions for Scoring School Budgets*, ASBJ, vol. 71, no. 4, 47–48, October, 1925.

Dr. Clark proposes a score card for measuring the efficiency of a budget used by a school system. There are five main headings to the score card: Preparation, Voting, Execution, Control, and Special. The reader may understand the scope of the score card by noting the items listed under the heading Preparation: (1) Who Prepares Estimates? (2) How Are They Prepared? (3) Are All the Items in the Budget? (4) In How Small Divisions Is the Budget Prepared? (5) What Time Is Consumed in Preparing the Budget? and (6) Are Estimates Padded?

An objective method of scoring is used. For example, under the first individual item, the question is asked, "Who prepares the estimates?" Full value is given if the superintendent has actual charge of the preparation of the budget, half value if the school board nominally prepares the budget and the superintendent actually does the work, zero if the school board or a committee of the board does the work with only an occasional conference with the superintendent. Other values within the limits may also be assigned, using the criteria given as a guide.

IN PAPER COVERS

HOEFER, CAROLYN. *Methods of Health Instruction in the Elementary School*. Chicago, Elizabeth McCormick Memorial Fund, 1925. 56 pp.

This pamphlet contains a reprint of six articles on classroom method for increasing the efficiency of health instruction. These articles appeared in the *Elementary School Journal* in the years 1921 and 1922.

PENNSYLVANIA. *Educational Surveys*. Harrisburg, Pennsylvania, Department of Public Instruction, 1925. 398 pp.

This pamphlet contains a group of reports by certain committees appointed by the Pennsylvania Superintendent of Public Instruction to study certain major educational problems. These committees' reports present surveys of appropriations and subsidies, of high schools, of normal schools, of rural schools, and of teachers' institutes.

MUNKRES, ALBERTA, AND OTHERS. *A Selected Bibliography for Elementary Workers in Religious Education*. Boston, Boston University, 1925. 24 pp. (Boston University Bulletin, Vol. XIV, No. 10)

This bibliography is arranged under fifteen topics extending through a variety of subjects from child study, organization and administration, pedagogy through Bible story material, manners and customs, and missions to story telling, dramatics, and handwork.

MICHIGAN STATE TEACHERS' ASSOCIATION. *Rural Teachers' Salaries in Michigan*. Lansing, Michigan State Teachers' Association, 1925. 35 pp. (Bulletin No. 5, Part I)

This pamphlet contains the first part of a more extended report to be rendered to the Michigan State Teachers' Association by its Committee on Salaries. Not only have they tabulated the results regarding the salaries of the teachers but also have included such items as the cost of room and board and the amount saved. The average preparation of the teachers is determined, and the minimum number of years of experience and the relation of preparation to salary received are also tabulated. The report concludes that there is no relation between salary and experience in the

rural schools. The Committee recommends (1) that one year of professional training from a normal school or its equivalent be required for eligibility to teach in a rural school; (2) that each year of academic and professional training above the minimum requirements be rewarded by $100 increase in salary; (3) that the minimum salary for the teachers meeting minimum requirements be $900; (4) that each year of additional experience for the teachers meeting the minimum requirement of preparation be rewarded for a period of six years by a five-percent increase in salary.

BOOKS TO READ

BOWMAN, CLYDE A. *Graphic Aids in Occupational Analysis for Guidance and Teaching.* Milwaukee, Wisconsin, Bruce Publishing Company, 1924. 103 pp.

One reviewer discussing this book, said: *Graphic Aids in Occupational Analysis* has many of the virtues and few of the disadvantages of a pioneer book. Certainly those interested in progressive methods in vocational education and guidance will give it careful attention and many workers will try out its methods in the classroom."

THURSTONE, L. L. *The Fundamentals of Statistics.* New York, Macmillan Company, 1925. 237 pp.

Within the twenty-five chapters of this book the following topics are discussed: the tabulation and graphing of data, linear and non-linear relations, the measurement of central tendency and variability, the probability curve, and correlation. The explanations, although mathematically sound, are clear and concise. The problems which follow each chapter afford the student opportunity to practice the methods suggested.

OTIS, ARTHUR S. *Statistical Method in Educational Measurement.* Yonkers-on-Hudson, World Book Company, 1925. 337 pp.

The confessed purposes of this book are to present statistical method in such a way that it can be understood by those who know nothing whatever about the subject and to cover all the topics a school teacher, administrator, or researcher may need. Students of education will warmly welcome this book because the author throughout his entire discussion, draws his illustrations from practical everyday problems of mental and educational testing.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

Kansas City, December 29, 30, 31

Section Q—Education

Tuesday morning, December 29

Specific Studies of School Curricula

This program will include five or six special papers reporting work in different parts of the country.

Tuesday afternoon, December 29

Specific Studies of Teaching Procedure

This program will include five or six special reports of investigations in classroom procedure.

Wednesday, December 30

Both the morning and afternoon sessions will be devoted to reading and the discussion of shorter papers volunteered for the program by workers in Universities, Teachers Colleges, and public schools.

Wednesday evening, December 30

The members of Section Q will unite with the educational fraternity, Phi Delta Kappa, in a joint dinner. The organization of the dinner is in the hands of Phi Delta Kappa. The address by L. A. Pechstein, vice president of Section Q, is to be given at this dinner.

Thursday, December 31

Joint Session with Psychology Section

During both the morning and afternoon this section will meet in joint sessions with the Section of Psychology. The morning program is to deal with the refinements of instruments of measure in education; that of the afternoon, with reports concerning psychological and educational clinics.

Persons who have been engaged in work dealing with the topics of the program, are invited to communicate at once with the officers of the section.

OTIS W. CALDWELL,
Teachers College, Columbia University — *Vice President*

A. S. BARR,
Department of Education, University of Wisconsin — *Secretary*